

G. W. MAY.

Improvement in Saw-Sets.

No. 116,074.

Patented June 20, 1871

Fig. 1.

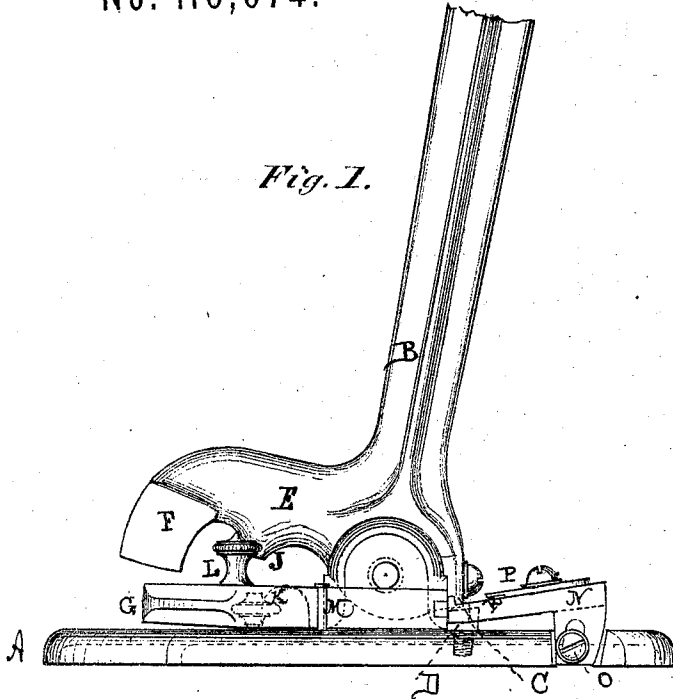


Fig. 2.

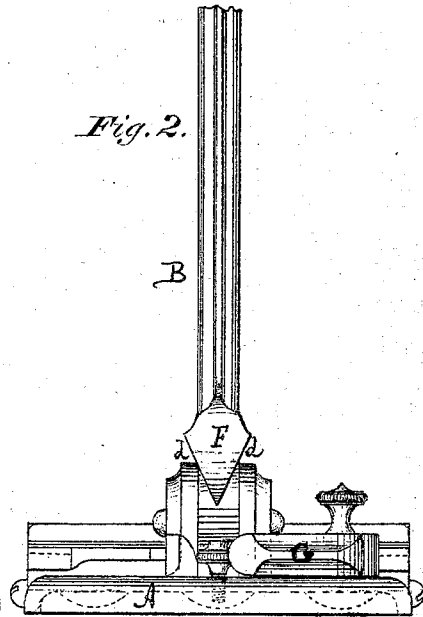


Fig. 3.

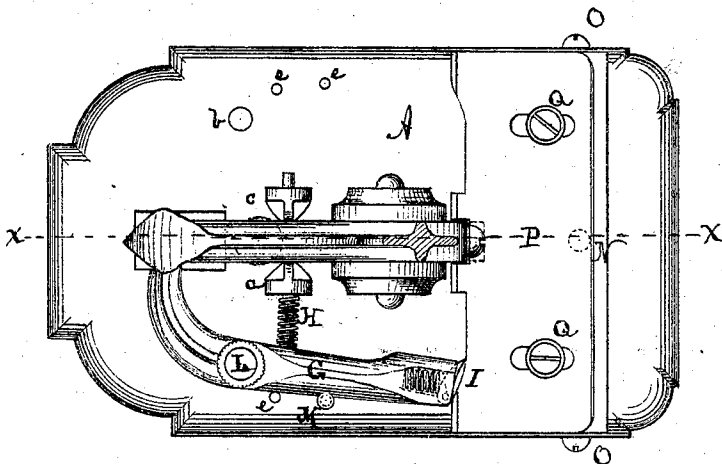
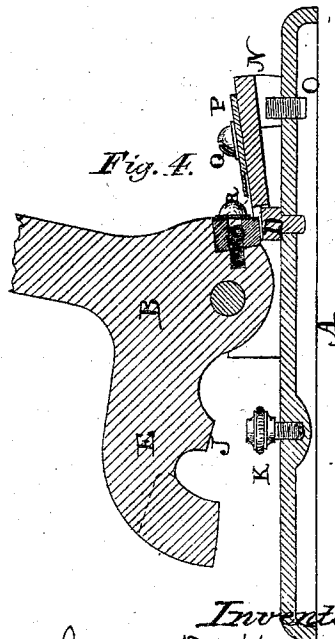


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE W. MAY, OF BALDWINVILLE, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND DANIEL L. THOMPSON, OF SAME PLACE.

IMPROVEMENT IN SAW-SETS.

Specification forming part of Letters Patent No. 116,074, dated June 20, 1871; antedated June 8, 1871.

To all whom it may concern:

Be it known that I, GEORGE W. MAY, of Baldwinville, town of Templeton, in the county of Worcester and State of Massachusetts, have invented certain Improvements in Saw-Sets; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing which makes part of this specification, and in which—

Figure 1 is a side view of the device illustrating my invention. Fig. 2 is a rear view thereof. Fig. 3 is a top or plan view thereof. Fig. 4 is a central longitudinal section in line *x x*, Fig. 3.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to a device for setting the teeth of saws, which is adjustable to any width of saws and any length of teeth; and, to these ends, consists in a lever which carries the "set," and likewise automatically feeds the set. It further consists in devices for adjusting the set to saws and teeth of various dimensions. It further consists in making the feed-lever removable, in connection with a two-faced cam on the hand-lever, whereby the saw can be moved in opposite directions.

In the drawing, A represents a table, from which rise ears or lugs, forming bearings for a lever, B. C represents the set proper. It consists of a piece of suitably-hardened metal, having a striking face, and secured to the forward portion of the lower end of the lever B by a screw or otherwise, whereby said set is rendered adjustable. The anvil or block D, of hard metal, is arranged in line below with the set C, and upon this anvil or block the teeth are pressed when struck by the set C. The lower portion of the lever B is extended to the rear into an arm, E, whose end is formed into a cam, F. G is a lever, which is pivoted to the plate A. Its rear end is adapted to be struck by the cam F so as to throw its front end toward the set C. When the cam is free from contact with the lever G the latter is restored to its normal position by means of a spring, H, which bears against the lever, and a lug, *a*, which is preferably cast with the plate A. The front end of the lever G carries a spring-tooth, I, which is designed to engage with the teeth

of the saw, and, on the forward movement of the said lever, force the saw toward the set C, but in the return motion thereof to ride or slide freely over the teeth and not disturb the saw. The arm E of the lever B is also formed with a projection, J, which strikes against a screw, K, which is made movable on the table A. It will be perceived that the limit of the action of the cam F will correspondingly affect the movement of the lever G. By raising or lowering the screw K the rear swing of the lever B is regulated, and the play of the lever G will be governed accordingly. The object of this adjustment is to adapt the set to saw-teeth of various dimensions. It is desirable that the lever G be made removable in order to shift to the opposite side of the table. To this end it is detached and reversed. Its fulcrum-screw L is then introduced into an opening, *b*, the spring H shifted to bear against a lug, *c*, cast with the plate A instead of lug *a*, as formerly; and in this position the lever G can be operated by the cam F, which is provided with two faces, *d d*, as those clearly seen in Fig. 2. By this arrangement saws may be moved in opposite directions. The adjustment of the lever G is further accomplished by a stop-pin, M, which is made to enter openings *e e* in the table A, and thus regulate the outward movement of the forward end of the said lever G. The increase or decrease of the leverage will move the saw a relative distance. N represents an adjustable table, which is arranged on the table A at right angles to the set C. Set-screws O are suitably arranged to hold the table in proper position. By raising or depressing the table the saw will obtain more or less set. On this table N I arrange a plate, P, which is made adjustable to the width of saws and confined by screws Q. A space, R, is allowed between plate P and table N, in which the saw is designed to move laterally; but by the plate P the saw is held in position and prevented from longitudinal displacement.

The operation is as follows: Adjust the saw upon the table N, screwing down the plate only sufficient to prevent the saw from slipping backward, and, having adjusted the tooth exactly under the set C by means of the set-screw K, bring forward the lever B only sufficient to press the tooth firmly upon the block D; then press

the lever B backward as far as the set-screw K will allow. By this motion the feed-lever will move the teeth the required distance. Continue this until one side of the saw is set; then, removing the saw, turn and readjust, and also shift the feed-lever G to the other side of the table A, and repeat the operation of setting this side of the saw. To adjust the feed-lever G to a long-toothed saw, remove the pin M and lower the set-screw K until the tooth I of the feed-lever catches the required tooth.

It will be seen that I produce a simple and effective device.

Claims.

1. The lever B, carrying the set C, and operating the feed-lever G by means of the lever E and cam F, substantially as described.
2. The removable feed-lever G, having the spring-tooth I, in combination with a hand-lever

and a cam, F, substantially as and for the purpose described.

3. In combination with the removable feed-lever G, having spring-tooth I, the pin M, substantially as described.

4. The adjusting-screw K, in relation to the projecting arm E of the hand-lever, substantially as and for the purpose set forth.

5. The adjusting devices, consisting of set-screw K, cam F, and pin M, in connection with the feed-lever G and hand-lever B, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. MAY.

Witnesses:

S. CADY,

CYNTHIA G. SEARLE.